

# The Dairy Dozen: 12 Key Financial Indicators

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Most schools still hand out report cards. Every other business measures itself with ratios. The dairy business should not be any different.

More than any article that I have written for Hoard's Dairyman over the years, the article "The Dairy Dozen: 12 key financial indicators" keeps generating producer comments. Producers tell me they have the article hanging in their office over their computer station, on the top page of their financial books and in many other easy-to-see places.

There are a lot of financial ratios and calculations that producers, accountant and lenders use. However, the principle behind the Dairy Dozen is this: I focus on only 12. There are others that are important, but if you get these right, most of the others will fall into place.

## **1. Income per cow — \$5,000 target**

The number one cause of business failure is the lack of sales. Milk is 85 percent of the income on most dairy operations. Obviously, this number will be directly related to the milk price. Based on current related expenses, this number must be greater than your expenses. The income per cow calculation is pretty straight forward. Milk sales, cull cow, calf and breeding stock sales, government programs and patronage refunds all equal gross income. Divide the gross income by the average number of cows that were on the dairy for the year.

## **2. Operation cost as a percentage of gross income — 80 percent**

Can you believe in 1980 the operating cost on a dairy farm was 50 percent! That means a dairy producer could do whatever he or she wanted with the other 50 percent. A quick way to get this number is to use the Schedule F from your tax return. Make sure that you add in the cost of family living. Then divide this number by the gross income. If you prepaid expenses for the next year, back those out; if you have unpaid expenses that you carried over to the next year, add those back in. It is better to use your farm-generated income and expense report. The tax return is the second best way to get your expense numbers. If you want to find out your true "cash" cost of production, add up all of your cash expenses as described above, then add in your principal and subtract out the depreciation. That is what really comes out of the checkbook.

### **3. Milk sold per cow — 24,000 (Holsteins, make a breed adjustment for others)**

Every dairy producer breeds with better bulls, tries to feed better feed and tries to improve cow comfort. This keeps raising the pounds of milk sold each year. A higher debt load can be offset by more hundredweights of milk being sold.

### **4. Ownership equity — 50 percent**

Ownership equity is the percentage of the dairy that you own. To determine this ratio, divide the net worth by the total assets. These figures are found on your balance sheet. For many operations, as sole proprietors, this will be on your personal balance sheet. If the business is a corporation, LLC or partnership, this will be found on a separate balance sheet.

In this capital-intensive business, 30 percent equity will work but loans must be structured to make sure that there is a comfortable cash flow. Lenders will find it hard to say yes to a borrower with less than 30 percent equity.

### **5. Current Equity — \$2 for each \$1 of current liabilities**

It shows your ability to pay your bills. It says that you need \$2 of current assets for every \$1 of current liabilities. Current assets are cash, feed, prepaid expenses and any item that is cash or will be turned into cash in the next 12 months. Current liabilities are bills over 30 days such as bills for feed, veterinary, cropping expenses, real estate taxes that are postponed, and principal payments and any lease payments due in the next 12 months. To calculate, divide the current assets by the current liabilities.

### **6. Cost of producing 100 pounds of milk — \$17.50**

There has never been a more important time to know this number. Not to oversimplify the calculation, but if you add up your Schedule F expenses with a reasonable depreciation; add in payables, subtract out prepaid expenses; add in your family living and income taxes; subtract out cull cows, calf sales and government payments; and divide that number by the number of hundredweights of milk that you sold last year, you will come up with a reasonable cost of producing 100 pounds of milk. This number will be directly affected by a producer's land base. Cost of growing feed presently is less expensive than buying all of your feed needs.

### **7. Feed cost — 20 to 45 percent of gross income**

This was a wild one in 2012. The calculation is completed by dividing the purchased feed on Schedule F by the gross income. Remember to also add back in any feed payables; those were expenses to feed the cows. Growing and buying quality forage has never been more important. There is a huge range in this number, depending on your operation.

If you grow all of your feed, your cost should be at the lower end of the scale but you will have extra cost in cropping, fuel and land. If you are purchasing all of your feed, you will be at the upper range of the scale with no cost in cropping.

### **8. Livestock expenses — 4 percent**

This is a small percentage item, but it is an indicator of possible problems. Metabolic problems before or after calving can push this number up. As do breeding problems which suggest that there will be a drop in milk flow in the future. If used, rBST costs need to be placed in the supply expenses area so the livestock expenses are properly shown. To calculate, add the breeding and veterinarian expenses and then divide that number by the gross income.

### **9. Debt per cow — \$5,000**

The inflation values of the major capital investments that touch a dairy operation have driven this number higher. Loan structure is very important in this area to have a comfortable cash flow. Some dairies will choke on \$1,000 debt per cow. Others can handle more. Another way to look at this is to have no more than \$20 of debt per 100 pounds of milk produced. This does take into consideration the production level to the amount of debt that the cash flow should be able to handle.

### **10. Debt coverage — no more than 20 percent of gross income for payments**

There are a couple of ways to look at how many dollars should be set aside for interest and principal payments. Ideally, not more than 15 percent of the gross income should go toward interest and principal payments. This number can be pushed to 20 percent in times of need. Beyond 20 percent makes making payments very difficult.

Divide the loan payments by the gross income. Another measuring stick is to make sure after all cash expenses, including family living, that there is at least \$1.25 left to pay \$1 of payments. These ratios must be followed.

### **11. Asset turnover — 2.5 times**

An example here is if you have \$1 million invested in your dairy and you generate \$400,000 in gross income, you turned those assets in 2.5 years. Most of agriculture takes 3.5 years to turn their assets. That is too long.

This is a key calculation to do when you consider investing in more assets. Make sure you are investing in assets that generate money. Every \$1 of a new capital expense should generate 70 cents of gross income each year thereafter.

## **12. Total investment per cow — \$7,500 to \$15,000**

Divide the total dollars in assets by the number of cows. This number is closely related to asset turnover. Dairies with a limited land base will carry \$7,500 of investment per cow. Dairies with large land bases will run up to \$15,000 and beyond. Higher land, cow and building values have driven this up over the last 10 years.

One of the owner's jobs today is to get the best return with the least investment per cow. If you have other enterprises on your farm such as the sales of grain, this number will be distorted due to additional investments. I am addressing the farm's milk operation only in my calculations.

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